CLAIMS

I Claim:

1. (original) An information transfer protocol system connected to a network,
a computer with a display for a user connected to the network, and an
information transfer protocol using the network and supporting a process
describable as a finite state machine and a state dependent information
transfer message

where the information transfer protocol system comprising

the finite state machine describing the process,

an information storage,

a process state storage;

receives a first state dependent information transfer message from the
network;

determines from the process state storage, the first state dependent
information transfer message, and the finite state machine describing the
process, the next state of the process;

determines from the next state of the process, the first state dependent
information transfer message, and the information storage, the information
needed to be entered by the user;

generates a screen displaying information from the first state dependent
information transfer message and the information storage and requesting
the information needed to be entered by the user;

sends the screen to the computer with the display for the user to enter the
requested information;

receives the requested information entered by the user;

updates the information storage;

updates the process state;

creates using the information entered by the user and information from the
information storage, a second state dependent information transfer
message;

sends the second state dependent information transfer message to the network;

and, completes the operation on the first state dependent information transfer message.

2. (original) The information transfer protocol system of claim 1, wherein the network is the Internet and the computer with a display uses a Web browser for the display program.

3. (Cancel).

4. (Cancel).

2. (original) The information transfer protocol system of claim 1, further comprising a rule storage and a field value storage and before determining the information needed to be entered by the user, determines from the next state of the process, the first state dependent business information transfer message, the rule storage, and the field value storage, if an automated response is to be sent and if so determined:

- creates using the information from the information storage, the first state dependent transfer message, and the rule storage, a second state dependent information transfer message;

- sends the second state dependent information transfer message to the network;

- updates the information storage and the process state; and,

- completes the operation on the first state dependent information transfer message.

3. (original) The information transfer protocol system of claim 1 and an enterprise system where both are connected by a network and the information transfer protocol system further comprising a rule storage and a field value storage and before determining the information needed to be entered by the user, determines from the next state of the process, the first state dependent business information transfer message, the rule

storage, and the field value storage, if a enterprise systems message is to be sent and if so determined,

- creates using the information from the information storage, the first state dependent transfer message, and the rule storage, an enterprise systems message

- sends the enterprise systems message to the enterprise system.

- updates the information storage and the process state;

4. (original) A private exchange server comprised of a first information transfer protocol system with a first user, a second information transfer protocol system with a second user, and a state dependent information transfer protocol with state dependent information messages
where each information transfer protocol system consists of:

- finite state machine describing behavior of the state dependent information transfer protocol

- information storage

- storage of the state of the state dependent information transfer protocol

- user display and information entry

such that the information transfer protocol system, based on the state of the state dependent information transfer protocol and next possible states based on the finite state machine and contents of the information storage:

- requests from the user, using the user display, the information to modify information in a receiving information transfer protocol system

- accepts from the user, using the information entry, the modifying information

- creates a state dependent message using the modifying information and transfers the state dependent message to the receiving information transfer protocol system

- using the modifying information and the finite state machine,
   updates the state of the state dependent transfer and updates the
   information storage

wherein the first user modifies information in the first information transfer protocol system and based on the modification, the information transfer protocol modifies information in the second information transfer protocol system for use by the second user.

5. (original) The private exchange server of claim 7 which is further comprised of a third information transfer protocol system with a third user wherein the first user modifies information in the first information transfer protocol system and based on this modification the information transfer protocol modifies information in the third information transfer protocol system for use by the third user.

6. (original) The private exchange server of claim 7 and a fourth information transfer protocol system with a fourth user where the fourth information transfer protocol system is external to the private exchange server, both connected to a network that supports the information transfer protocol, wherein the first user modifies information in the first information transfer protocol system and based on this modification the information transfer protocol modifies information in the fourth information transfer protocol system for use by the fourth user.

7. (original) The private exchange server of claim 7 which is further comprised of a fifth information transfer protocol system and a sixth information transfer protocol system with a sixth user where the sixth information transfer protocol system is external to the private exchange system, all connected to a network that supports the information transfer protocol, wherein the first user modifies information in the first information transfer protocol system and based on this modification the information transfer protocol modifies information in the fifth information transfer protocol system and based on this modification the information transfer protocol modifies information in the sixth information transfer protocol system for use by the sixth user.

8. (original) The private exchange server of claim 7 and an external receiver of the information transfer protocol, both connected to a network that supports the information transfer protocol, wherein the first user modifies information in the first information transfer protocol system and based on this modification the information transfer protocol modifies information in the external receiver of the information transfer protocol.

12. (original) The private exchange server of claim 7 where each information transfer protocol system further consists of a rule storage and a field value storage and before determining modifying information needed to be entered by the user, determines from the next state of the state dependent information transfer protocol, the rule storage, and the field value storage, if an automated response is to be sent and if so determined,

   • creates using the information from the information storage, the state of the state dependent information transfer protocol, and the rule storage, a state dependent information transfer message

   • sends the state dependent message to the receiving information transfer protocol system.

   • updates the information storage and the state of the state dependent information transfer protocol;

13. (original) The private exchange server of claim 7 and an enterprise system where both are connected by a network and where each information transfer protocol system further consists of a rule storage and a field value storage and before determining modifying information needed to be entered by the user, determines from the next state of the state dependent information transfer protocol, the rule storage, and the field value storage, if an enterprise message is to be sent and if so determined,

   • creates using the information from the information storage, the state of the state dependent information transfer protocol, and the rule storage, an enterprise message

   • sends the enterprise message to the enterprise system.

- updates the information storage and the state of the state dependent information transfer protocol

14. (original) The private exchange server of claim 7 and an enterprise system where both are connected by a network and where each information transfer protocol system further consists of a rule storage and a field value storage and before determining modifying information needed to be entered by the user, determines from the next state of the state dependent information transfer protocol, the rule storage, and the field value storage, if the modifying information is in an enterprise message and if so determined,

- receives the enterprise message with the modifying information
- creates using the modifying information, information from the information storage, the state of the state dependent transfer, and the rule storage, a state dependent information transfer message
- sends the state dependent information transfer message to the receiving information transfer protocol system.
- updates the information storage and the state of the state dependent information transfer protocol;

15. (original) The information transfer protocol system of claim 1 and an enterprise system where both are connected by a network and each information transfer protocol system further comprising a rule storage and a field value storage and before determining the information needed to be entered by the user, determines from the next state of the process, the first state dependent business information transfer message, the rule storage, and the field value storage, if the modifying information is in an enterprise message and if so determined,

- receives the enterprise message;
- creates using the information from the information storage, the first state dependent transfer message, the rule storage, and the enterprise systems message, a second state dependent information transfer message

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PAGE 12/15 * RCVD AT 2/19/2005 4:46:34 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:408 555 1212 * DURATION (mm-ss):04-40

- sends the second state dependent information transfer message to the network and,
- updates the information storage and the process state;
- completes the operation on the first state dependent information transfer message.

16. (original) The private exchange server of claim 7, wherein the private exchange server capabilities are provided as a propagated signal on a network, such as the Internet, to a system providing a user interface, such as a Web browser.

17. (original) A closed loop business process exchange consisting of a first business process system with a first user, a second business process system with a second user, an information transfer protocol supporting a closed loop state dependent process using state dependent messages where each business process system consists of:

- storage of the state of the closed loop process
- finite state model of the behavior of the closed loop process
- information storage
- user display and information entry

where the business process system determines from the state of the closed loop process, the possible states from the finite state model, and the information storage if the closed loop process is complete and if not complete:

- determines the information required from the user for the next states of the process
- accepts from the user the required information
- creates a state dependent message using the information
- sends the message to the receiving business process system
- updates the state of the closed loop business process and the information storage

wherein the first user using the first business process system initiates the closed loop business process with the second business process system with the second

user, the second user responds using the second business process system to the first business process system with the first user, and the closed loop business process loops between the first user and the second user until the closed loop business process completes.

18. (original) The closed loop business process exchange of Claim 17, a third business process system with a third user, where the closed loop business process exchange and the third business process system are connected by a network that supports the information transfer protocol wherein the first user using the first business process system initiates the closed loop business process with the third business process system with the third user, the third user responds using the third business process system to the first business process system with the first user, and the closed loop business process loops between the first user and the third user until the closed loop business process completes.

19. (original) T he closed loop business process exchange of Claim 17 and an enterprise system where both are connected by a network where the first business process system further consists of a rule storage and a field value storage and before determining modifying information needed to be entered by the user, determines from the next state of the state dependent transfer, the rule storage, and the field value storage, if an enterprise message is to be sent and if so determined,
- creates using the information from the information storage, the state of the closed loop business process, and the rule storage, an enterprise message
- sends the enterprise message to the enterprise system.
- updates the state of the closed loop business process and the information storage

20. (original) The closed loop business process exchange of Claim 17 and an enterprise system where both are connected by a network where the first business process system further consists of a rule storage and a field value

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storage and before determining modifying information needed to be entered by the user, determines from the next state of the state dependent transfer, the rule storage, and the field value storage, if the information is in an enterprise message and if so determined,

- creates using the information from the information storage, the state of the closed loop business process, the rule storage, and the enterprise message, a state dependent message
- sends the state dependent message to the second business process system.
- updates the state of the closed loop business process and the information storage.

21. (new) The information transfer protocol system of claim 1, wherein the information transfer protocol system further supports a second closed loop business process with second state dependent transactions with the inclusion of: a second finite state machine, additional information for the second closed loop business process including means to generate user screens.